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SEPTEMBER 23, 1986

- Environment control, front and center
- OA-factory links
- LU6.2 loves Irma
- Ethernet-host ties
- Tuning micro DBMSs

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Roger Schelm, vice president of applied research/ expert systems at Cigna.

COMPUTER DECISIONS

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About the cover: The 1922 Ahrens Fox piston pumper fire engine on the cover is part of the Cigna Museum collection in Philadelphia. It was used by the West Reading, PA, fire department from 1922 until 1960, and is still in working order.

Cover photo by David Wells

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Cheaper IBM ASCII terminal... Continuing its policy of offering low-priced terminals, IBM expanded its 316X line of ASCII terminals with the 3162, a $645 terminal for the IBM Series/1 mini, the System/88 fault tolerant machine, and IBM Personal Computers, including the RT PC.

Priced about the same as the 3161 terminal, the 3162 offers a wider screen, displaying up to 132 characters per line. With four additional plug-in cartridges priced between $40 and $60, the 3162 can be configured to emulate the a wide range of terminals including the VT-220/100/52 from Digital Equipment Corp. (Maynard, MA) and the Models 50 and 60 Plus from Wyse Technology (San Jose, CA). □

Quick exits for MIS/dp managers... Are MIS/dp managers descendents of a nomadic tribe? According to Herb Halbrecht, a Stamford, CT-based executive recruiter, the average MIS/dp director stays at a job only about three to four years and then moves on. Halbrecht blames the high turnover on rapid technology changes, competition for top MIS/dp talent, and a failure to appreciate MIS/dp's role in a corporation's business. For the most part, Halbrecht says, successful MIS/dp executives are "smart politicians" who are able to sense what users want and not take credit for every success. Success doesn't necessarily lead to longevity, however; Halbrecht adds that successful managers often leave for better jobs in other corporations. □

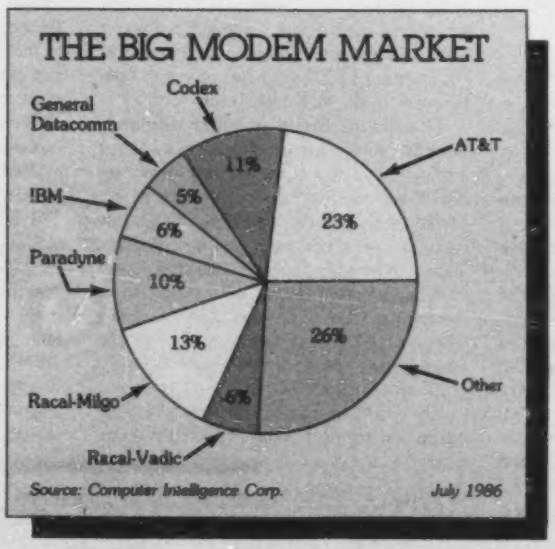
LANwriter debuts... The 645E Memorywriter from Xerox Corp. (Stamford, CT) is the first electronic typewriter able to connect to a local-area network, according to the vendor.

The $4,395 645E can be connected to a Xerox LAN or any other Ethernet network. With the Ethernet connection, the Memorywriter can access documents from and distribute them to Xerox computers on the network, including Model 860 word processors, 8010 and 6085 workstations, and 6060 Series computers. The new typewriter can also take advantage of a range of laser printers that can be attached to the network. □

LED printer to tackle big assignments... Analysts say the new Kodak Ektaprint 1392 printer from Eastman Kodak Co. (Rochester, NY) is the only nonimpact electronic printer that uses a light-emitting diode (LED) array image writer and operates at speeds (up to 92 pages per minute) acceptable for high-volume use.

Kodak's new offering can be used with the Kodak Ektaprint Electronic Publishing System (Keeps), a document-creation system introduced last year, or with IBM mainframes. The printer's speed is in the same ballpark as high-volume laser printers such as the IBM 3800 and the Xerox 9700, says Cathy Dingman of CAP International, a consultancy in Marshfield, MA. Dingman says LED printers are cheaper to operate and maintain than laser printers because they have fewer moving parts. The LED mechanism in the Kodak 1392 printer weighs about 10 pounds and can be removed easily for maintenance or replacement.

The resolution offered by the 1392 printer (300 dots per inch) equals that available on laser printers. The 1392 holds up to 3,500 sheets of paper, which helps cut down on reloading time. Although an exact price was not available at press time, Kodak says its new printer will cost under $200,000. □



PBX upgrade from north of the border... Mitel Corp. (Kanata, Ontario) announced an upgrade for its Generic 1000 software, which converts its SX-200 analog private branch exchange to a full digital product. The software for the upgraded switch, which is based on the Integrated Services Digital Network, allows documents to be exchanged electronically during a voice conversation. The digital SX-200 will sell for $430 to $620 per line and will support up to 480 ports. Mitel also announced the Superset family of telephones, which also support ISDN standards. □

Multiuser mini micro... A new IBM Personal Computer clone from Sperry Corp. (Blue Bell, PA) supports up to five users under the Xenix System V operating system. Called the PC/microIT because of its small footprint (15 inches by 15 inches), the new clone costs only $2,345 in the basic version, which includes 512 Kbytes of RAM. An expanded version, with the same 512K bytes of memory plus a 20-Mbyte hard disk, costs $3,590. Memory can be expanded to 1.5 Mbytes without using an expansion slot, and up to 3.5 Mbytes using a single slot.

The PC/microIT will be compatible with a new workstation from Memorex Corp. (Santa Clara, CA) that will function as an IBM 3270-based micro-to-mainframe link. The compatibility provides early fruit from the merger of Sperry and Burroughs Corp. (Detroit), which owns Memorex. □

(News continued from page 30)

SOFTWARE AND SERVICE INDUSTRY

ROOKIES BREAK INTO THE BUSINESS

More computer software and service vendors are being acquired by corporations outside the industry, according to a report published by Broadview Associates (Fort Lee, NJ).

The large corporations scooping up smaller high-tech firms typically have deep pockets and can lend financial and marketing assistance. But they expect return on their investment, analysts say.

Of the record 144 corporations involved in deals during the first six months of this year, 53 were newcomers to the industry, compared with 31 newcomers in the first half of last year, according to the biannual Broadview Association/Adapso (Association of Data Processing Service Organizations) Index. The total dollar value of all transactions reached a record high of $1.9 billion, up 124 percent from the $846 million in the first half of last year, according to the index.

Newcomers are attracted to the industry because technology stock is undervalued, says Bruce Hadburg, an analyst with Mountain View, CA-based Input Inc. "The price is right, the market overall has done well, plus, it's cheaper to buy someone else's capability than to start it yourself," he says.

But some analysts question whether new entrants to the industry will be able to make the transition or understand the software business enough to succeed. Ted Faigle, an associate at Index Systems Inc., a market researcher in Cambridge, MA, recalls instances in which corporate cultures clashed. In one case, Exxon Corp. (New York) acquired several small high-tech firms a few years ago, but employees started to leave because they weren't used to the management style of an oil company. Earnings collapsed, and Exxon's high-tech portfolio is limited to one printer manufacturer.

"Computer software and services is an attractive market right now, which is causing outside companies to enter," says Faigle. "But it's a very competitive industry, and the consolidation of strong competitors already existing in the market will make it difficult for new entrants to gain access to distribution channels."

George Grodahl, a partner at Broadview, believes new entrants are not naive to the differences in corporate styles. Most acquirers consider the purchase an investment, and intend on keeping a "hands off" approach, he asserts. As an example, he cites the acquisition by Ameritech Inc. of software vendor Applied Data Research Inc., Princeton, NJ. Grodahl says Applied Data Research continues to run the way it ran before the Chicago-based Bell regional holding company bought it.

The Broadview/Adapso Index also indicates that divestitures of existing software and service companies is up sharply. Divestitures accounted for 42 percent of the sales, compared with 27 percent last year. Grodahl attributes the increase to corporate decisions to focus on one or a limited number of services, streamline an acquired company by divesting operations that don't fit the central strategy, raise money to fund other operations, or simply quit the business.

"Selling a company isn't a sign of weakness or failure," Grodahl asserts. "Companies don't buy problems or acquire companies they perceive to be bailing out. They invest in a company, strengthen it through research and development, and then expect a return on investment," he says.

> Can new entrants understand the software business?

Survival of the biggest is how Hadburg views the marked increase in divestitures. He believes smaller software and service organizations will disappear. "It makes economic sense," says Hadburg. "No longer can a two- or three-person company write an outstanding package and then successfully sell the product based on its merit alone. The game is being played on a much larger scale, and those that don't move up to that scale face going away."

Of the transactions reported in the first half of 1986, 24 percent involved micro software vendors, according to Broadview. Grodahl singles out the micro software arena as a buyers' market, attracting large software vendors that want to expand existing product lines without having to put up with the time and expense of development. The big three micro software houses—Lotus Development Corp. (Cambridge, MA), Microsoft Corp. (Redmond, WA), and Ashton-Tate (Torrance, CA)—are actively seeking to expand by buying the products of smaller houses.

Competition is yet another force spurring companies to merge. "Companies such as Cullinet Software Inc. [Westwood, MA] and Information Builders Inc. [New York], known for mainframe applications, are beginning to move into the micro arena and will be viewed as threats by the leading micro software companies," says Faigle. "For micro software vendors to maintain their leading positions and continue growth rates, they need to expand their product lines." —*Theresa Conlon*

BIG DEALS*

Company acquired	By	Price**
Quotron Systems Inc. *(Los Angeles-based securities quotation service)*	Citicorp *(New York-based banking and financial corporation)*	$680
Control Data's Ticketron division *(New York ticket service)*	Allen & Co. *(New York-based investment banker)*	$140
Applied Communications Inc. *(Omaha, NE, electronic funds transfer service)*	U.S. West Inc. *(Englewood, CO-based Bell operating company)*	$120
Deltak Inc. *(Naperville,IL-based dp training outfit)*	National Education Corp. *(Irvine, CA-based technical training corporation)*	$84
Display Data Corp. *(Hunt Valley, MD-based turnkey distribution systems maker)*	Convergent Technologies Inc. *(Santa Clara, CA-based computer maker)*	$59

*January through June 1986
**In millions
Source: Broadview Associates/ADAPSO biannual survey of software and service industry

Chart by Vincent J. Gallo